''A PRE-EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAMME ON KNOWLEDGE AND PRACTICE REGARDING SAFE HANDLING OF CHEMOTHERAPEUTIC DRUGS AMONG THE STAFF NURSES AT SELECTED HOSPITALS, THANJAVUR.''

By

Reg.No : 301212452

A DISSERTATION SUBMITTED TO THE TAMILNADU DR.M.G.R.MEDICAL UNIVERSITY,CHENNAI,IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF MASTER OF SCIENCE IN NURSING

OCTOBER 2014

''A PRE-EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAMME ON KNOWLEDGE AND PRACTICE REGARDING SAFE HANDLING OF CHEMOTHERAPEUTIC DRUGS AMONG THE STAFF NURSES AT SELECTED HOSPITALS, THANJAVUR''.

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SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF MASTER OF SCIENCE IN NURSING FROM THE TAMILNADU Dr. M.G. R. MEDICAL UNIVERSITY,CHENNAI.

OCTOBER 2014

DECLARATION

I hereby declare that the present dissertation titled "A Pre-experimental study to assess the effectiveness of video assisted teaching programme on knowledge and practice regarding safe handling of chemotherapeutic drugs among the staff nurses at selected hospitals, Thanjavur", outcome of the original research work undertaken and carried out by me, under the guidance of Research guide Prof. Mrs. Vanitha Innocent Rani .,M.Sc(N),Ph.D, Principal, Our lady of Health College of Nursing and Clinical specialty guide Mrs. Iraimani .,M.Sc(N)**,** Medical Surgical Nursing Department, Our Lady Of Health College of Nursing.

I hereby declare that the material of this has not found in any way, the basis for the award of any degree/diploma in this University or any other University.

301212452

CERTIFICATE

CERTIFIED THAT THIS IS THE BONAFIDE WORK OF

301212452

AT OUR LADY OF HEALTH COLLEGE OF NURSING

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF MASTER OF SCIENCE IN NURSING FROM THE TAMILNADU Dr. M.G. R. MEDICAL UNIVERSITY,CHENNAI.

Examiners :

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2. _____

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LIST OF ABBREVIATIONS

SHORT FORMS	ABBREVIATION
HOD	Head of the Department
H0	Null hypotheses
H1	Research hypotheses
SD	Standard deviation
λ^2	Chi-square
S	Significant
NS	No significant
ASCO	American Society of Clinical Oncology
ONS	Oncology Nursing Society
ANM	Auxiliary nurse midwifery
GNM	General nursing and midwives
B.Sc (N)	Bachelor of science in nursing

ABSTRACT

A Pre-experimental study to assess the effectiveness of video assisted teaching programme on knowledge and practice regarding safe handling of chemotherapeutic drugs among the staff nurses at selected hospitals, Thanjavur. One-group pretest-post test design was used among 50 staff

nurses by using purposive sampling technique. The Self administered knowledge questionnaire and observational check list were given to assess the knowledge and practice in pre and post test levels. Finally, the statistical analysis of data revealed that, in knowledge ('t'=14.18) and practice('t'=18.53) scores of 't' value had a significant difference in pre and post test levels of the staff nurses at 0.05 level. The correlation between the post test levels of knowledge and practice regarding chemotherapeutic drugs, the 'r' value is 0.77; it indicates that there is a positive and significant correlation. The study findings revealed that the Video assisted teaching programme was effective for the staff nurses.

VIDEO ASSISTED TEACHING PROGRAMME

ON

SAFE HANDLING OF CHEMOTHERAPEUTIC DRUGS

VIDEO ASSISTED TEACHING PROGRAMME

SUBJECT	:	MEDICAL SURGICAL NURSING
TOPIC	:	SAFE HANDLING OF CHEMOTHERAPEUTIC DRUGS
GROUP	:	STAFF NURSES
VENUE	:	THANJAVUR CANCSR CENTRE AND ROHINI HOSPITAL,THANJAVUR.
DURATION	:	45 minutes
METHOD OF TEACHING	:	VIDEO ASSISTED TEAHING PROGRAMME
TEACHING AIDS	:	VIDEO TEACHING AND VIDEO DEMONSTRATION
NAME OF THE INVESTIGATOR	:	MRS.THAMIZHARASI.T
NAME OF THE RESEARH GUIDE	:	MRS.IRAIMANI., M. Sc(N), READER.

CENTRAL OBJECTIVE:

The group will able to understand and gain knowledge , develop their skills in practices regarding safe handling of chemotherapeutic drugs.

SPECIFIC OBJECTIVES:

The Staff Nurses will be able to,

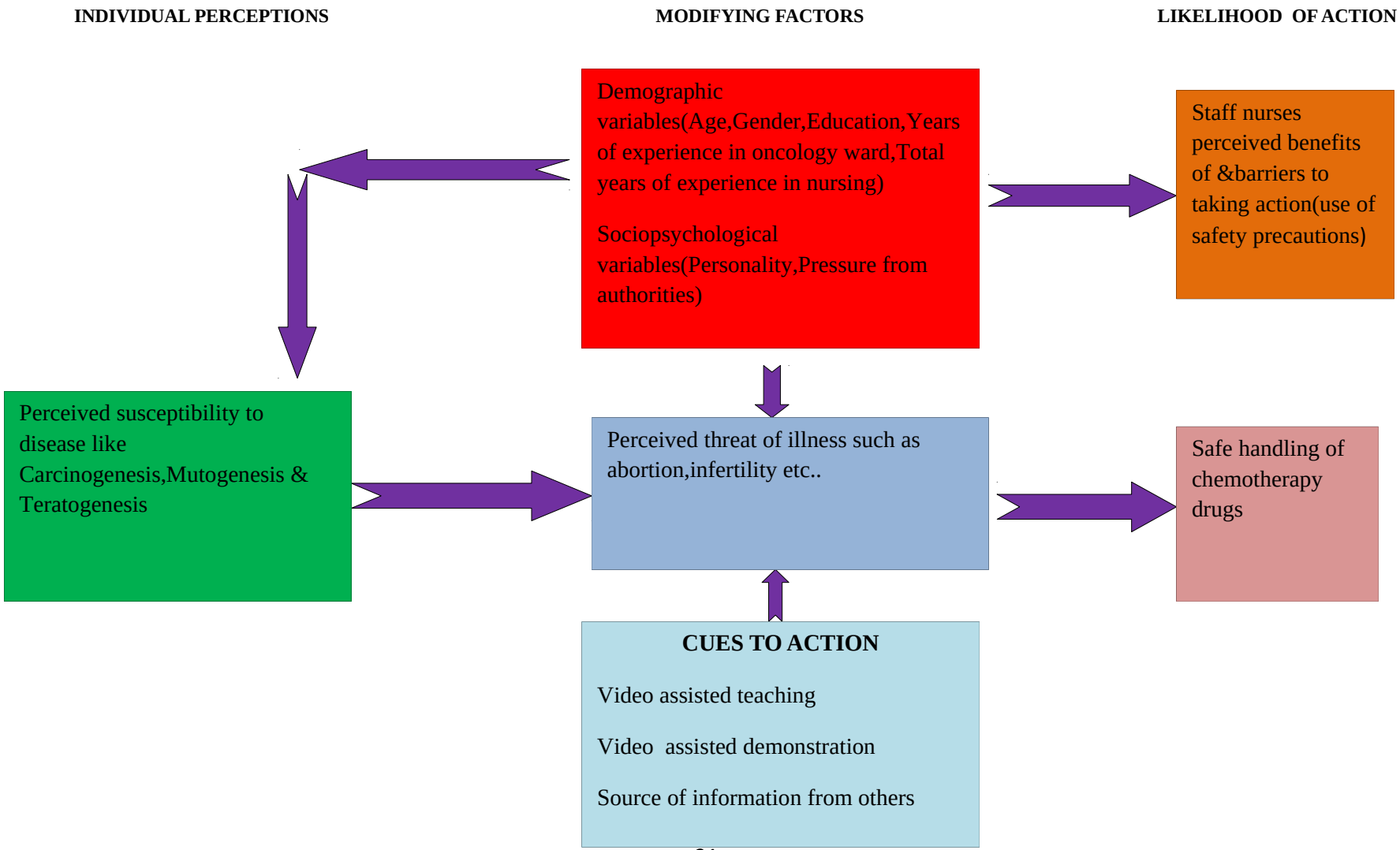
- define chemotherapy.
- list down the general instructions for preparation and administration of cytotoxic drugs.
- demonstrate the procedure of preparation and administration of cytotoxic drugs.
- explain the procedure for management of spillage during direct contact, spillage inside the hood and outside the hood.
- perform the chemotherapy drug spill check list.
- explain the management and prevention of extravasation.
- enlist the advances in chemotherapy.

S. NO	TIME	SPECIFIC OBJECTIVES	CONTENTS	RESEARCHER ACTIVITY	LEARNER ACTIVITY	A.V. AIDS	EVALUATION

1.	2mts	Staff nurses will able to understand about the topic.	**INTRODUCTION** Good morning to all.... As we all know that one of the leading cause of death is a cancer. To reduce the severity of cancer we need to get treatment. One of the common treatment for cancer is chemotherapy. It can be given for variety of cancer and it has been proven to be effective also. chemotherapy drugs not only affect the patients, it affects the nursing personnel also when we are getting repeated exposures to cytotoxic drugs. Cancer chemotherapy drugs can cause Mutagenesis, Teratogenesis, Carcinogenesis, and Sterility when administered to humans. The risk varies with the specific drug and its concentration, and with the frequency and duration of exposure to the drugs.	Video teaching	Listening	Lap-Top	

2. 3.	3mts	Staff nurses can able to explain the cancer and its treatment	 **WHAT IS CANCER?** Cancer is a disease process whereby the cells are proliferating abnormally and ignoring the growth-regulating signals in the environment surrounding the cells. **TREATMENTS FOR CANCER** • Radiation Therapy • Chemotherapy • Unproven and unconventional therapy. • Surgical procedures Here my topic is related to the chemotherapy.	Video teaching	Listening	Lap-Top	What is cancer?

CONCEPTUAL FRAMEWORK BASED ON HEALTH BELIEF MODEL



INTRODUCTION

BACKGROUND OF THE STUDY

Diseases can rarely be eliminated through early diagnosis or good treatment, but prevention can eliminate disease.

—Denis burkitt

Cancer is the uncontrolled growth of abnormal cells in body. The treatment of cancer with chemotherapeutic drugs started in early 20th century. Since then chemotherapy begin to use to treat many types of cancer.

Cytotoxic drugs sometimes known as antineoplastic, anticancer or cancer chemotherapy drugs include a wide range of chemical compounds. Because of their ability to kill tumor cell by interfering with cell division, they are extensively used to treat cancer Cancer therapy is broadly based upon the use chemotherapeutic drugs with strong anti-cancer cytotoxic effects. Their widespread use has led to concerns about the hazards that they can cause among hospital personnel involved in their use, as besides cancer cells these agents can also affect normal cells causing them important damages **.** In order to minimize occupational exposure to chemotherapeutic cytotoxic drugs, special department design and equipment are necessary as well as personal protective measures and safety practices during all procedures involving the use of these agents, such as transportation and storage, preparation and reconstitution, administration and care of patients and finally disposal.

Awareness of chemotherapy effects typically influences treatment plans for patients undergoing cancer therapy to prevent or mitigate adverse outcomes. However, beyond the patient safety concerns arising from the necessary therapeutic use of these drugs, occupational risks to health care workers handling these drugs in the course of their duties still need to be fully addressed.

Worldwide, more than 11 million new cases of cancer are diagnosed each year, and that number is expected to rise to 16 million by 2020. In United States on 2014 Feb 21,the national cancer institute estimated new cases from breast cancer were 2,35,030 and deaths were 40430. In the United States, the American Cancer Society (ACS) predicts that almost 1.4 million new cancer cases will be diagnosed in 2006 and this figure will double by the year 2050 because the US population is growing and aging. The estimated new cases of all cancers in 2013 were 1,660,290 and estimated deaths in 2013 were 580,350.

TABLE 1.1 : COMMON TYPES OF CANCER AND ESTIMATION ON 2013

S.NO	COMMON TYPES OF CANCER	ESTIMATED NEW CASES 2013	ESTIMATED DEATHS 2013
1.	Prostate Cancer	238,590	29,720
2.	Breast Cancer	232,340	39,620
3	Lung and Bronchus Cancer	228,190	159,480
4.	Colon and Rectum Cancer	142,820	50,830
5.	Melanoma of the Skin	76,690	9,480
6.	Bladder Cancer	72,570	15,210
7.	Non-Hodgkin Lymphoma	69,740	19,020
8.	Kidney and Renal Pelvis Cancer	65,150	13,680

9.	Thyroid Cancer	60,220	1,850
10.	Endometrial Cancer	49,560	8,190
	-	-	-
	ALL CANCER SITES	**1,660,290**	**580,350**

In 2013, it is estimated that there will be 1,660,290 new cases of all cancer sites and an estimated 580,350 people will die of this disease.

This increased patient load, along with the use of high-dose chemotherapy, combinations of several drugs, and the use of antineoplastic drugs for diseases other than cancer, will increase the potential for exposure of the health care worker to these drugs.

For the past 3 decades, treatment for many of these cancer cases has relied principally on anticancer chemotherapy. The first such agent, sulphur mustard gas, was observed to cause changes in bone marrow of World War I veterans who were hospitalized many years later. This led to its evaluation as an anticancer agent, and the related, but less toxic, nitrogen mustards were later demonstrated to produce tumor regression in lymphoma patients. With approximately 100 different antineoplastic drugs now in use and many more under development, drugs used to treat cancer have opened new avenues, from improving the quality of life of patients with cancer to a complete cure.

Many of the cytotoxic drugs are known to be Carcinogenic, Teratogenic and Mutagenic to humans. Recent studies shows the increase in the potential risks due to occupational exposure to these drugs. These may include hair loss, headache, acute irritation as well as adverse reproductive outcomes including infertility, spontaneous abortion and congenital malformation.

The potential occupational risks for health care professionals may vary due to differences in the frequency and duration of use and individual vulnerability . All hospital staff working with chemotherapy drugs should take protective measures to protect themselves from possible exposure which is greatly increase during administration of these drugs, therefore strict safety protocol is required at all times.

Chemotherapy is designed to kill unhealthy cells, but it can also damage the healthy ones. While handling chemotherapy drugs and other potent or hazardous drugs for their patients, nurses must be extremely careful not to ingest them in any quantity.

Over five and one half million healthcare workers (HCWs) are potentially exposed to hazardous drugs (HDs) in the workplace. The Occupational Safety and Health Administration [OSHA] acknowledged this occupational risk and issued recommendations for the safe handling of hazardous drugs more than twenty years ago (OSHA, 1986). According to the National Institute for Occupational Safety and Health [NIOSH] (2004), there is documented evidence of contamination of the work environment with hazardous drugs , which increases the potential for exposure by nurses, pharmacists and other healthcare workers when these agents are handled inappropriately. So, the National Institute for Occupational Safety and Health (NIOSH) has released an alert outlining the risks of handling chemotherapy drugs for nurses and millions of other health workers.

NEED FOR THE STUDY

"Avoid the worst put safety first"

The International Agency for Research on Cancer has classified several antineoplastic drugs in Group 1 (human carcinogens), among which chlorambucil, cyclophosphamide (CP) and tamoxifen, Group 2A (probable human carcinogens), among which cisplatin, etoposide, *N*-ethyl- and *N*-methyl-*N*-nitrosourea, and Group 2B (possible human carcinogens), among which Bleomycins, Merphalan and Mitomycin C. The widespread use of these mutagenic/carcinogenic drugs in the treatment of cancer has led to anxiety about possible genotoxic hazards to medical personnel handling these drugs.

In response to reports of measurable air levels of antineoplastic agents in hospitals and preliminary evidence of exposure to personnel handling these agents, a survey was designed and conducted to document the current handling practices of injectable antineoplastic drugs by hospital and health care workers at two major teaching hospitals and three affiliated community hospitals. The survey included assessment of drug preparation, administration, and disposal. A sample of nurses who routinely come in contact with these drugs was interviewed for validation of the observed results. Handling practices for drug preparation were not consistent from practitioner to practitioner. In some cases, where laboratory coats and disposable gloves were provided, it was not a routine practice to wear them. Based on such analysis of risk factors, recommendations for improved practices are given.

Surveys have associated workplace exposures to antineoplastic drugs with acute health effects, primarily in nurses. These included hair loss, headaches, acute irritation, and/or hypersensitivity, as well as adverse reproductive outcomes (including infertility, spontaneous abortions, and congenital malformations). A meta-analysis of 14 studies performed in the United States and Europe described an association between exposure to

antineoplastic drugs and adverse reproductive effects in female health care workers. The most common reproductive effects found in these studies were increased fetal loss, congenital malformations, low birth weight and congenital abnormalities, and infertility.

A study was done to identify the routines followed and the equipment used by hospital staff when handling antineoplastic drugs . Efforts had been made to protect the personnel from potential adverse effects from the medications prepared or administered. However, still a shortage of protective equipment such as ventilated cabinets. Existing cabinets were often not used and maintained in a proper manner. On the basis of the responses to the questionnaire, it may be concluded that there is still a need for further evaluation of the routines used in the practical handling of antineoplastic agents in hospital wards.

Ramanand Chaudhary.,Basant Kumar Karn (2012), was conducted to determine both the level of information that nurses possessed and the method of administration nurses used during chemotherapeutic drug preparation and administration at chemotherapy units of all hospitals in west turkey. Nurses showed that their actual administration method was insufficient according to their level of information, with average administration evaluations of 5·46 for protection of the environment and 6·59 for self-protection. The ratio for nurses' usage of the safety cabinet during the preparation of chemotherapeutic drugs was very low at 14·2%. Only 7·4% of nurses had received in-service education about chemotherapeutics. Thus, it has been recognized that nurses' information and administrations during preparation and administration of chemotherapeutic drugs are of utmost vital importance in removing the harmful effects of chemotherapeutic agents.

Falk and Colleagues(2009) found that the nurses who prepared and administered antineoplatic drugs had higher indicators of mutagenic substances in their urine compared with non exposed workers. A dose

response was also observed in the urine mutagenicity frequency with additive exposure over the work week that decreased over the weekend. This study suggested that nursing personnel were being occupationally exposed to mutagenic antineoplastic drugs. These findings were supported by numerous studies examining urine mutagenicity, chromosomal aberrations, sister chromatid exchanges and other end points in studies on pharmacists and Nurses who handle antineoplastic drugs.

Majd T. Mrayyan, Middle East Journal of nursing (2009) reported that Healthcare practitioners may underestimate the exposure risk associated with hazardous drugs. The risk of exposure extends along the drugs' entire life cycle, including the manufacturing, transporting, dispensing, and administering processes. The safe handling of hazardous drug spills is uniquely different from other healthcare spills, and exposure extends beyond patients and healthcare practitioners because nonclinical staff are often involved with the containment and disposal of spills. PA-PSRS has received more than 40 reports of patients and staff exposure to hazardous drugs. Many events involved intravenous (IV) tubing disconnections resulting in hazardous drugs leaking to the floor, the patient, hospital gowns, and linens. Many exposure incidents were attributed to IV port or site leaks and involved IV spiking issues, resulting in large hazardous spills. Risk reduction strategies include developing a hazardous drugs program; encouraging personnel compliance in the storing, dispensing, transporting, and administering of these medications; managing spills; and disposing of hazardous drugs in such a way that the most appropriate guidelines are used to minimize exposure.

Based on the above information it is evident that the nurses are at greater risk of developing adverse effects due to occupational exposure to antineoplastic drugs. Apart from this during my clinical exposure I have noticed that nurses are inadequately protected due to lack of knowledge and clear guidelines on safe handling of antineoplastic drugs. So I felt that it is

essential to assess the knowledge and improve their existing knowledge regarding safe handling of antineoplastic drugs among the staff nurses.

STATEMENT OF THE PROBLEM

"EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAMME ON KNOWLEDGE AND PRACTICE REGARDING SAFE HANDLING OF CHEMOTHERAPEUTIC DRUGS AMONG THE STAFF NURSES AT SELECTED HOSPITALS,THANJAVUR."

OBJECTIVES

- To assess the knowledge and practice regarding safe handling of chemotherapeutic drugs among the staff nurses before administration of video assisted teaching programme.
- To develop video assisted teaching programme.
- To evaluate the effectiveness of video assisted teaching programme regarding safe handling of chemotherapeutic drugs among the staff nurses.
- To correlate the knowledge and practice regarding safe handling of chemotherapeutic drugs among the staff nurses.
- To determine the association between the pre test level of knowledge and practice regarding safe handling of chemotherapeutic drugs among the staff nurses and their selected demographic variables such as Age , Gender, Religion, Education, Experience in oncology ward, Total years of experience in nursing.

HYPOTHESES

All the hypotheses are tested at the significant level of "0.05 "

H1 - There is a significant difference between the pre test and post test scores of knowledge and practice regarding safe handling of chemotherapeutic drugs among the staff nurses.

H2 - There is a significant correlation between the post test of knowledge and practice regarding safe handling of chemotherapeutic drugs among the staff nurses.

H3 - There is a significant association between the pre test level of knowledge and practice regarding safe handling of chemotherapeutic drugs among the staff nurses and their selected demographic variables such as Age , Gender, Religion, Education, Experience in oncology ward and Total years of experience in Nursing.

OPERATIONAL DEFINITIONS

EFFECTIVENESS:

It refers to the extent to which the video assisted teaching programme has influenced the knowledge and practice of the staff nurses regarding safe handling of chemotherapeutic drugs.

KNOWLEDGE:

It refers to the information gained by the staff nurses through video assisted teaching programme regarding safe handling of chemotherapeutic drugs.

PRACTICE :

It refers to the technical skill gained by the staff nurses through video assisted teaching programme regarding safe handling of chemotherapeutic drugs.

CHEMOTHERAPEUTIC DRUGS:

It refers to a group of drugs which are widely used to control the abnormal cell proliferation in the body in case of patients with cancer.

VIDEO ASSISTED TEACHING PROGRAMME:

It refers to an information, education and communication method for communicating health message regarding safe handling of chemotherapeutic drugs among the staff nurses.

STAFF NURSES:

It refers to the persons who are qualified nurses working in the oncology ward in a selected hospitals , Thanjavur.

ASSUMPTIONS

- The staff nurses may not have aware about risk of exposure to chemotherapeutic drugs
- Video assisted teaching programme may enhance the knowledge and practice.

LIMITATIONS

- The study is limited to the nurses who are working in oncology ward at selected hospitals, Thanjavur.
- The study period is limited to 6 weeks.

PROJECTED OUTCOME

This study helps to improve the knowledge and practice of staff nurses regarding safe handling of chemotherapeutic drugs.

The Video assisted teaching programme on knowledge and practice regarding safe handling of chemotherapeutic drugs will protect the health care personnel and others from ill effect on chemotherapeutic drugs.

CHAPTER-II

REVIEW OF LITERATURE

Literature is a key step in a research process. The main goal of literature is a strong base to carry out research activities in the education and clinical practice. An extensive review of literature relevant to research was done to gain insight and collect maximum information for laying the foundation for this study.

PART - I

It is divided into two sections.

SECTION - A

Information related to safe handling of chemotherapeutic drugs.

SECTION - B

The information related to the management of spillage.

PART - II

Conceptual framework.

PART-I

SECTION A : SAFE HANDLING OF CHEMOTHERAPEUTIC DRUGS.

Al-Azzam SI, Awawdeh BT, Journal of oncology pharmaceutical practices(2014) reported that the majority of participants (74.2%), representing nine out of 15 (60%) hospitals, reported full compliance of workplace with all requirements of the guidelines. Items with full compliance in all hospitals were availability of policies and procedures for safe handling of antineoplastic agents, availability of reporting system and availability of sharp containers. Concerning healthcare workers' guidelines, worker with full compliance were 46.4% of participants. Items with least compliance rate were working inside biological safety cabinet (65.1%) and having training program of handling chemotherapy medications(66.7%).Finally, concerning items-related

personal protective equipments, only 10.7% of participants reported full compliance. Items with least compliance rates were wearing goggles, shoe cover, and hair cover. The result of this study showed the levels of compliance with guidelines pertaining to work place and workers who prepare and administer anti neoplastic medications. Among other points, compliance with guidelines pertaining to wearing personnel protective equipments was limited and required further improvement.

S Gilani and S Giridharan, E cancer medical science(2014), given the information related to health risks to fetuses due to the handling of chemotherapeutic agents by nurses during pregnancy is limited. The risks involved can be reduced significantly if nurses adhere to standard safety precautions while handling cytotoxic drugs. Nurses in patient areas where chemotherapy is administered are at constant low-level risk of exposure. The authors tried to gather evidence in this article from the recent literature to help to formalize policies for pregnant mothers working in these settings.

Especially, during the first trimester, exposure should be limited as much as possible. During the second and third trimesters, work may be allowed if standard safety precautions are followed . In brief, the responsibility lies with nurses to follow the guidelines . At the very first indication of suspected exposure, they should try to remove themselves from the source .

Keat CH., Sooaid NS ., clinical journal of oncology nurses(2013) reported that prospective interventional study with a before and after design requested a single group of 96 nurses in 15 wards actively providing chemotherapy to answer a self-administered questionnaire. A performance checklist was then used to determine the compliance of all these wards with the recommended safety measures. The first and second assessments took 2 months respectively with a 9-month intervention period. The mean age of nurses was 32.2±6.19 yrs. Most of them were female (93.8%) and married. The mean knowledge score of nurses was significantly increased from 45.5 ±10.52 to 73.4±8.88 out of 100($p<0.001$) at the end of the second assessment. Overall, the mean practice score among the wards was improved from 7.6±5.51 to 15.3±2.55 out of 20 ($p<0.001$).The pharmacist -based interventions improved the knowledge, attitude and safe practices of nurses in cytotoxic drug handling. Further assessment may help to confirm the sustainability of the improved practices.

Nitin Vyas , Journal of oncology pharmaceutical practices (2013) stated that anti-cancer drugs are non-selective, they affect both cancerous and non-cancerous cells. Being carcinogenic and mutagenic, many anticancer drugs therefore present a major health risk to healthcare staff working with them. This paper reviews the means by which exposure to anti-cancer drugs in the workplace may be monitored, assessed and reduced. Both biological monitoring, using non-selective methods or compound-selective methods, and environmental monitoring have provided information on the nature and degree of exposure in the workplace. However, the interior of isolators and the

contents there of (e.g. infusion bags and syringes) are readily contaminated by aerosols and spillages and afford a secondary source of exposure to pharmacists, nurses and cleaning staff. Closed system transfer devices (CSTDs), designed to prohibit the transfer of contaminants into the working environment during drug transfer between the vial and syringe, have been successful in further reducing, but not eliminating surface contamination. Given that the number of patients requiring treatment with chemotherapeutic agents is predicted to increase, further efforts to reduce occupational exposure to anti-cancer drugs, including the refinement and wider use of CTSDs, are recommended.

Siden R., Kem R., Ostrenga A., **Journal of oncology pharmaceutical practices** (2013) reported that increased use of oral chemotherapy for the treatment of cancer introduces new challenges for patients and caregivers. Among them are the ability to swallow oral solid dosage forms, the proper administration of the agents and the safe-handling of chemotherapeutic drugs in the home. Since these drugs are hazardous, proper preparation, administration, and disposition introduces a variety of safety issues. The increased toxicity of these drugs coupled with complicated dosing regimens and the occasional need to dilute the drug or measure a liquid dosage form require careful instruction of the patient and/or caregivers. The purpose of this project was to create templates for writing patient instruction brochures.

Anna N. Vioral ,**Clinical journal of oncology nursing** (2012) found that Chemotherapy involves an intricate, high-risk, multidisciplinary process of prescribing, dispensing, and administering complex multi medication regimens with narrow therapeutic indices. Chemotherapeutic agents also require safe-handling precautions for patients and healthcare providers. In addition, a number of chemotherapy and targeted therapies have expanded to non oncology populations. This complexity demands standardization of chemotherapy practice for all healthcare providers to ensure safe outcomes.

This article describes one organization's multidisciplinary effort to standardize chemotherapy practice according to the American Society of Clinical Oncology and Oncology Nursing Society's 31 safety standards for chemotherapy administration and also describes how the organization integrated and developed standards of practice using interdisciplinary approaches. The article equips healthcare professionals with a multidisciplinary process for high-quality clinical standards of practice that may reduce errors and ensure safety.

Vioral AN., Kennihan HK, Journal of oncology pharmaceutical practices (2012) found that a Chemotherapy involves an intricate, high-risk, multidisciplinary process of prescribing, dispensing, and administering complex multi medication regimens with narrow therapeutic indices. Chemotherapeutic agents also require safe-handling precautions for patients and healthcare providers. In addition, a number of chemotherapy and targeted therapies have expanded to non oncology populations. This complexity demands standardization of chemotherapy practice for all healthcare providers to ensure safe outcomes. This article describes one organization's multidisciplinary effort to standardize chemotherapy practice according to the American Society of Clinical Oncology and Oncology Nursing Society's 31 safety standards for chemotherapy administration. The article also describes how the organization integrated and developed standards of practice using interdisciplinary approaches. The educational processes used during implementation and the lessons learned are discussed to assist healthcare providers involved in standardizing chemotherapy administration. The article equips healthcare professionals with a multidisciplinary process for high-quality clinical standards of practice that may reduce errors and ensure safety.

Walton AM., Mason S., Busshart M , Clinical journal of oncology nursing (2012)stated that the Occupational exposure to chemotherapy is a a significant and ubiquitous danger to oncology nurses. The Oncology Clinical

Nurse III/IV leadership group at the University of North Carolina Hospitals embarked on the challenge of a comprehensive standards review regarding personal protective equipment necessary when handling waste after hazardous drug administration. This review led to practice improvements in education, the use of chemotherapy related gloves when handling hazardous waste, and changes in the disposal options available to staff. A discharge teaching pamphlet on safe handling for the caregivers of patients receiving hazardous drug was created and piloted in this study.

Magda M. Mohsen and Manal E. Fareed, International journal of medical,pharmaceutical sciences (2011),reported that a Widespread use of chemotherapeutic drugs in the treatment of cancer has lead to higher health hazards among employee who handle and administer such drugs, so nurses should know how to protect themselves, their patients and their work environment against toxic effects of chemotherapy. Aim of this study was carried out to examine the effect of chemotherapy safety protocol for oncology nurses on their protective measure practices. Safety protocol for Oncology Nurses seemed to have positive effect on improving nurses' knowledge and practice.

Polovich M, Martin S, Oncology nurses forum (2011)found that Respondents were well educated (57% had a bachelor's degree or more), experienced (X = 19, SD = 10.2 years in nursing and X = 12, SD = 7.9 years in oncology), and certified (70%; majority OCN). Forty-seven percent of respondents were aware of the NIOSH Alert. Thirty-five percent of all participants and 93% of nurses in private practice settings reported preparing chemotherapy. Glove use (95%-100%) was higher than that reported in earlier studies, and gown use of drug preparation(65%)drug administration and handling excretions(23%) have remained unchanged. Double-gloving was rare

(11%-18%). Nurses in private practices were less likely to have chemotherapy designated PPE, use PPE, and use spill kits for HD spills.

Vagka E., Dallidou P et..al, European Journal of Cancer Care(2011) enumerated that the expansion of chemotherapy raised concerns about the health and safety of hospital personnel. Very little is known about the conditions of handling of chemotherapeutic agents by healthcare workers in Greece and possible adverse effects related to their safety practices, as well as the safety policies adopted by the Greek hospitals. A self-evaluation questionnaire was completed by 353 healthcare workers involved with the use of chemotherapeutic drugs in 24 Greek hospitals and the answers were statistically analysed. The majority of the healthcare workers are aware of the dangers of their work, although they had received limited training and medical surveillance. A significant percentage of them does not use personal protective equipment or use it inadequately. The safety design of their workplace is rather poor. Different health problems have been experienced, deriving from the respiratory, central nervous system, reproductive, gastrointestinal and musculoskeletal system. The improvement of safety training and procedures as well as medical surveillance seems to be a vital priority of hospital administration in Greece, in order to comply with the European guidelines and for the prevention of occupational diseases and environmental pollution.

Bonelli and Michele R. Mc Corkle, Journal of oncology pharmaceutical practices (2010), evaluated that the knowledge, attitudes and beliefs of Cypriot nurses on their exposure to antineoplastic agents. Most of the participants reported high levels of compliance with the use of personal protective equipment such as gloves and protective gown (95.4%, and 84.5%) during reconstitution of antineoplastic agents, respectively. Almost all nurses (98.8%) reported use of a safety cabinet during preparation, however only 53.4% reported that they have annual medical checkups and only 33% reported having received specialized training. While the level of knowledge

about antineoplastic agents is high among nurses, along with the level of personal protective equipment use, medical surveillance and employee training seems to be lagging behind.

Ellice Mellinger, **AORN Journal**(2010) found that safe handling of chemotherapeutic agents during administration and disposal is critical. Most antineoplastic agents are toxic compounds that are carcinogenic, mutagenic, or teratogenic. Direct contact may cause irritation of the skin, eyes, and mucous membranes. Perioperative personnel should know how to handle hazardous materials safely to protect the patient, other staff members, and themselves. These safety precautions include appropriately identifying the patient; correctly preparing, verifying, and documenting the chemotherapeutic agents being administered; consistently wearing personal protective equipment; transporting the chemotherapeutic agent in a puncture-resistant container labeled "chemotherapy"; properly disposing of the chemotherapeutic agent and supplies; and handling a spill if one occurs.

Karima Elshamy, Mona El-Hadidi , African journal of hematology and oncology(2010) reported that the health hazards among the study group and controls were: abortions (31.4% vs. 10.3%), infertility & sub-fertility (14.3% vs. 3.4%), premature labour (14.3% vs. 17.2%), soft tissue injuries due to spills & splashes (14.3% vs. 0.0%), and developmental and behavioural abnormalities among the children of the nurses (8.6% vs. 3.4%). Urine samples from study nurses were more mutagenic than controls (40% vs. 10.3%). Risky behaviour among study nurses included: eating food in drug handling areas (45.7%), use of improper place for preparing and handling cytotoxic drugs, expelling air from syringes filled with drugs, needle stick injuries, unsafe handling of contaminated material and unsafe cleaning of spills. Only 22.9% of the study nurses attended a training program about occupational health and safety and 8.6% of them mentioned that there are nursing care guidelines for procedures for dealing with patients receiving

cytotoxic drugs as well as presence of in-service training programs. There was poor use of protective equipment in the study group.

Kyprianou M, Kapsou M, Raftopoulos V, Soteriades ES,Europian journal of oncology for nurses (2010) reported that a total of 88 nurses participated in the survey (20 male and 68 female). The mean age of the nurses was 33 years (age range 21-60). The majority of nurses were aware of the potential hazards associated with handling of chemotherapy. The mean score of the participants' knowledge was 79.43 out of 100. Most of the participants reported high levels of compliance with the use of personal protective equipment such as gloves and protective gown (95.4%, and 84.5%) during reconstitution of antineoplastic agents, respectively. Almost all nurses (98.8%) reported use of a safety cabinet during preparation, however only 53.4% reported that they have annual medical checkups and only 33% reported having received specialized training. While the level of knowledge about antineoplastic agents is high among nurses, along with the level of personal protective equipment use, medical surveillance and employee training seems to be lagging behind.

Martha Polovich, Patricia C. Clark, Journal of oncology pharmaceutical practices (2010) found that the Nurses were experienced in oncology (*M* = 15.8 ± 7.6) yrs, well-educated (62.5% ≥BSN), certified in oncology nursing (85%), worked in outpatient settings (69%), and on average treated 6.8 ± 5.2 patients per day. Chemotherapy exposure knowledge was high (*M* = 10.9, ± 1, 0-12 scale) as was self efficacy for using PPE (*M* = 20.8 ± 3, 7- 24 scale), and perceived risk (*M* = 3.14 ± .6, 0-4 scale). Total precaution use during hazardous drug administration and disposal was low . Nurse characteristics did not predict hazardous drugs precaution use. In the final model (R2 = .29, F (2, 155) = 24.6, p < .000), fewer patients per day, fewer barriers and better workplace safety climate were independent predictors of higher precaution use. Results emphasize the importance of organizational

influence on nurses' hazardous drug safe handling precaution use and suggest fostering a positive workplace safety climate and reducing barriers as interventions.

Eisenberg S,**Journal of infusional nurses** (2009) found that a antineoplastic chemotherapy describes a group of hazardous drugs commonly used in the treatment of cancer. Since the discovery of their presence in nurses and pharmacists more than 2 decades ago, numerous studies have reported on the short- and long-term consequences of exposure. Guidelines describing proper equipment and procedures have been established in an effort to eliminate or minimize environmental and biologic exposure. Nursing compliance, however, has been variable. This study described the dangers of exposure, how it occurs, and steps to keep nurses safe while working with these hazardous drugs.

Harrison, Valanis, Vollmer,Journal of clinical oncology(2009)said that Acute symptoms have been reported in nurses and pharmacists who were occupationally exposed to hazardous drugs. These include hair loss, abdominal pain, nasal sores, contact dermatitis, allergic reactions, skin injury, and eye injury .

Joseph O. Jacobson, Martha Polovich, Kristen K. Mc Niff, Journal of clinical oncology (2009) Stated that standardization of care can reduce the risk of errors, increase efficiency, and provide a framework for best practice. In 2008, the American Society of Clinical Oncology (ASCO) and the Oncology Nursing Society (ONS) invited a broad range of stakeholders to create a set of standards for the administration of chemotherapy to adult patients in the outpatient setting. At the close of a full-day structured workshop, 64 draft standards were proposed. After a formal process of electronic voting and conference calls, 29 draft standards were eliminated, resulting in a final list of 35 draft measures. The proposed set of standards was

posted for 6 weeks of open public comment. Three hundred twenty-two comments were reviewed by the Steering Group and used as the basis for final editing to a final set of standards. The final list includes 31 standards encompassing seven domains, which include the following: review of clinical information and selection of a treatment regimen; treatment planning and informed consent; ordering of treatment; drug preparation; assessment of treatment compliance; administration and monitoring; assessment of response and toxicity monitoring. Adherence to ASCO and ONS standards for safe chemotherapy administration should be a goal of all providers of adult cancer care.

Boston, MA, Oncology nurses forum (2008), concluded that the best among six commercially available disposable protective gown materials, the gowns with polyethylene or vinyl coating provided adequate splash protection and prevented penetration of the challenge chemicals during the 1-minute observation period. Polypropylene-based gowns did not provide adequate splash protection and should not be used to prepare chemotherapy.

Charmaine Cummings, Journal of oncology pharmaceutical practices (2008), determined that the patterns of personal protective equipment used by oncology nurses while handling hazardous drugs and to assess knowledge of the 2004 National Institute for Occupational Safety and Health (NIOSH) Alert and its effect on precaution use. Forty-seven percent of respondents were aware of the NIOSH Alert. Thirty-five percent of all participants and 93% of nurses in private practice settings reported preparing chemotherapy. Glove use (95%-100%) was higher than that reported in earlier studies, and gown use for drug preparation (65%), drug administration (50%), and handling excretions (23%) have remained unchanged. Double-gloving was rare (11%-18%).The study concluded that nurses lack awareness of current safety guidelines and further studies and teaching programmes are recommended.

Philip E Johnson , **Journal of oncology pharmaceutical practices** (2008) stated that the majority of respondents were aware of the WHO recommendations for IV Vincristine, although the rate of implementation of the guidelines ranged from 24.1 to 53.6%. When compared to the ISMP 2006 survey there was a 25.8—37.4% improvement in following many of the safe practice guidelines. Administering IV Vincristine via a mini bag showed the lowest rate of adoption (less than 40%). Of the 35 survey items on general chemotherapy safety strategies, 80% of respondents had implemented at least 21 items in the survey. Overall 32.4% of respondents did not consider oral chemotherapy as requiring the same safety concerns as parenteral therapy. The results of this survey will provide a new baseline for the adoption rate of safe medication practice recommendations related to oncology. Further work on addressing barriers in adopting identified safe practice recommendations needs to be conducted.

SECTION - B : MANAGEMENT OF SPILLAGE

Nezar Ahmad Salim, Journal of oncology pharmaceutical practices (2014) found that Chemotherapy agents are considered life-saving chemicals because of their ability to eradicate certain malignant diseases as well as increase disease-free survival for patients with cancer; chemotherapeutic agents have been classified as hazardous by the National Institute for Occupational Safety and Health. Chemotherapeutics agents are therapeutic agents which are known to be toxic to cells through their action on cell reproduction and are primarily intended for the treatment of neoplastic disorders, as more and more chemotherapy is given in outpatient clinics and at home, it is extremely important that caregivers and patients understand the risks and hazards that household members may be. Accidental spill of chemotherapy agents may occur during manufacture, transport, distribution, receipt, storage, preparation, and administration, as well as during waste handling and equipment maintenance and repair. As oncology nurses should

receive specific training which includes principles of chemotherapy administration, safe handling of cytotoxic drugs, classes of chemotherapeutic agents and cell kinetics, anaphylaxis, spill, and extravasations management, management of chemotherapy side effects and patient teaching.

Linda skinker, AORN Journal (2010) revealed that Safe handling of chemotherapeutic agents during administration and disposal is critical. Most antineoplastic agents are toxic compounds that are carcinogenic, mutagenic, or teratogenic. Direct contact may cause irritation of the skin, eyes, and mucous membranes. Perioperative personnel should know how to handle hazardous materials safely to protect the patient, other staff members, and themselves. These safety precautions include appropriately identifying the patient; correctly preparing, verifying, and documenting the chemotherapeutic agents being administered; consistently wearing personal protective equipment; transporting the chemotherapeutic agent in a puncture-resistant container labelled "chemotherapy"; properly disposing of the chemotherapeutic agent and supplies; and handling a spill if one occurs.

Bilal S. H. Badr Naga,Clinical journal of oncology nursing(2009) said that there are many different chemotherapeutic agents used in the treatment course of cancer patients. Chemotherapeutic agents have been classified as hazardous by the National Institute for Occupational Safety and Health. Chemotherapeutics agents are therapeutic agents which are known to be toxic to cells through their action on cell reproduction and are primarily intended for the treatment of neoplastic disorders. Chemotherapy agents have two unique features; the first is the low therapeutic indexes, which places patients at an increased risk for medication errors; the second, is they are considered hazardous drugs, which place patients and health care providers at risk for environmental exposure. Accidental spill of chemotherapy agents may occur during manufacture, transport, distribution, receipt, storage, preparation, and administration, as well as during waste handling and equipment

maintenance and repair. As nurses and health care providers are involved in preparation and administration of chemotherapeutic agents, they may expose themselves to hazardous effects that have been reported in several studies.

Kumari Sunita, Sukhpal Kaur, Nursing midwifery research journal(2009) found that the nurses, during preparation and administration of cytotoxic drugs are at higher risk to the dreadful side effects of these drugs. To determine the patterns of the cytotoxic drug spillages& the exposure of the nurses to these spillages, an observational assessment was carried out in the Chemotherapy administration areas (Radiotherapy Ward, Radiotherapy and Medical Day Care Rooms)at a tertiary care hospital. A direct non participatory observation was carried out for one month to assess the subjects. All the nursing personnel (22)who were posted in the chemotherapy administration areas participated in the study. During one month observation, 77.3% of the nurses experienced small spills (< 5ml or 5gms). The common site of the spillage for more than half(52.9%) of the subjects was surface of preparation of the drug and 47% experienced spillage over both surface of preparation and the gloves worn by them. The prevalence of spill per person in all the three research settings was 1.3, 2 and 3.6 respectively for Radiotherapy Ward, Radiotherapy and Medical Day Care Chemotherapy rooms. Results suggest that drug spills are common in chemotherapy administration areas. Guidelines to manage the cytotoxic drug spills to be displayed in the unit and a "chemotherapy spill kit" to manage cytotoxic spills should be made available in all the chemotherapy administration areas.

Michael N. Neuss , Journal of oncology pharmaceutical practices (2009) stated that ASCO and the Oncology Nursing Society (ONS) published standards for the safe use of parenteral chemotherapy in the outpatient setting, including issues of practitioner orders, preparation, and administration of medication. In 2011, these were updated to include inpatient facilities. In December 2011, a multi stakeholder workgroup met to address the issues

associated with orally administered antineoplastics, under the leadership of ASCO and ONS. The workgroup participants developed recommended standards, which were presented for public comment. Public comments informed final edits, and the final standards were reviewed and approved by the ASCO and ONS Boards of Directors. Significant newly identified recommendations include those associated with drug prescription and the necessity of ascertaining that prescriptions are filled. In addition, the importance of patient and family education regarding administration schedules, exception procedures, disposal of unused oral medication, and aspects of continuity of care across settings were identified. This article presents the newly developed standards.

Pennsylvania patient safety authority, Pennsylvania patient safety (2009)Stated that Healthcare practitioners may underestimate the exposure risk associated with hazardous drugs. The risk of exposure extends along the drugs' entire life cycle, including the manufacturing, transporting, dispensing, and administering processes. The safe handling of hazardous drug spills is uniquely different from other healthcare spills, and exposure extends beyond patients and healthcare practitioners because nonclinical staff are often involved with the containment and disposal of spills. PA-PSRS has received more than 40 reports of patients and staff exposure to hazardous drugs. Many events involved intravenous (IV) tubing disconnections resulting in hazardous drugs leaking to the floor, the patient, hospital gowns, and linens. Many exposure incidents were attributed to IV port or site leaks and involved IV spiking issues, resulting in large hazardous spills. Risk reduction strategies include developing a hazardous drugs program; encouraging personnel compliance in the storing, dispensing, transporting, and administering of these medications; managing spills; and disposing of hazardous drugs in such a way that the most appropriate guidelines are used to minimize exposure.

PART -II : CONCEPTUAL FRAMEWORK

HEALTH BELIEF MODEL

The health belief model is a health protection model that provides a framework to explain why some people take specific actions to avoid or treat illness, where as others fail to protect themselves (stanhope & Lancaster,2004;pender et al 2006).The model has been used to predict and explain health behavior on the basis of value-expectancy theory and kurt Lewin's cognitive theory.

Lewin is the cognitive theorist who conceptualized that certain aspect of a person's life space have negative, positive or neutral values. He believed that disease is a negative and as a result, exerts a force to move the person towards health behavior. He also believed that behavior is a function of the subjective value of an outcome and of the subjective expectation that a particular action will achieve that outcome (Rosenstock 1974).

The health belief model states that the probability that a person will take appropriate health care actions depends on the person's value of health, perceptions about disease, and perceived threats of disease. In addition action is motivated by perception about the medical team & therapy plans, past experience, contact with risk factors, level of participation in regular health care, life aspirations and factors in the environment.

The four components are perceived susceptibility, perceived severity, perceived benefits and perceived barriers.

The first component of this model involves the individual's perception of susceptibility to an illness. persons subjective perceptions of the risk if contracting health condition like Carcinogenesis, Mutagenesis & Teratogenesis. Perceived severity refers to the perceived seriousness of contracting an illness or leaving it untreated. In chemotherapy the staff nurses might not perceive that serious personal harm will occur as a result of lack of safe handling of chemotherapy drugs.

The second component is the individuals perception of the seriousness of the illness. This perception is influenced and modified by demographic and socio psychological variables, perceived threats of the illness and cues to

action(video assisted teaching programme. Video demonstration, sources of information from others etc..).

The third components of the likelihood that a person will take a preventive action results from the persons perception of the benefits of and barriers to taking action. Preventive action may include medical advice. in-service education, continuing education etc..

The health belief model helps the nurses to understand the factors influencing perceptions, beliefs & behavior in order to plan care which will most effectively assist staff nurses in maintaining or restoring health and preventing illness.

CHAPTER-III

RESEARCH METHODOLOGY

This chapter is devoted to the Methodology of Research approach and Design, Variables, Setting, Population, Sample, Sample Size, Sampling Technique, Sampling Criteria , Data collection tool, Report of Pilot study, Reliability and Validity of tool, Method of data collection, Scoring and Interpretation, Plan for data analysis and Protection of human subjects.

RESEARCH APPROACH

An Evaluative approach was used in this study by the investigator.

RESEARCH DESIGN

In a Pre-experimental design, One-group pretest-post test design was used for this study.

VARIABLES OF THE STUDY

- INDEPENDENT VARIABLES:
  Video assisted teaching programme
- DEPENDENT VARIABLES:
  Knowledge and practice of the staff nurses.
- DEMOGRAPHIC VARIABLES:

Age, Gender, Religion, Education, Experience in oncology ward and Total years of experience in nursing.

SETTING

The study was conducted in selected hospitals at Thanjavur, such as Rohini hospital and Thanjavur Cancer Centre.

POPULATION

The population were the staff nurses who are working in oncology ward at selected hospitals, Thanjavur.

SAMPLE

The sample comprised of the Staff nurses.

SAMPLE SIZE

The sample size comprised of 50 staff nurses those who were working in oncology ward.

SAMPLING TECHNIQUE

Purposive sampling technique was used to select the staff nurses.

SAMPLING CRITERIA

INCLUSION CRITERIA:

- The staff nurses who have completed ANM, Diploma or Degree in Nursing
- All shift of the staff nurses.
- Both male and female staff nurses
- Staff nurses who are working in oncology ward.

EXCLUSION CRITERIA:

- Untrained nurses.
- Non nursing personnel

DATA COLLECTION TOOL

Semi structured questionnaire will have III parts.

PART I :

Demographic data.

PART II:

It consist of Self administered knowledge questionnaires regarding safe handling of chemotherapeutic drugs among the staff nurses.

PART III:

It consist of observational Check list to observe practice of the staff nurses regarding safe handling of chemotherapeutic drugs.

REPORT OF THE PILOT STUDY

Pilot study was conducted for a period of one week. The investigator obtained permission from the participants prior to the study. The purpose of the study was explained to the subjects prior to the study. Pilot study was conducted for 5 staff nurses in Right Hospital and purposive sampling technique was used to select the sample. The knowledge and practice was assessed by semi structured knowledge questionnaire and observational check list respectively. Immediately after the pretest, Video assisted teaching programme was given in the form of Video recorded. The effectiveness was assessed on 7^{th} day by using the same questionnaire. The mean value of knowledge (23)of post test was higher than the mean value of pre test knowledge (13.2) and the mean value of post test practice (13) was higher than the mean value of pre test practice(10.6). It was shown that Video assisted teaching programme was effective. After pilot study, the tool was considered to be feasible and practicable.

RELIABILITY AND VALIDITY OF TOOL

To evaluate the effectiveness of Video assisted teaching programme the tools were constructed and modified by the researchers which were validated by the expert committee members. The reliability of the tool was established by test-retest (Karl Pearson co-efficient formula) method. The tool was feasible and practicable.

METHOD OF DATA COLLECTION

Written formal permission was obtained from the head of the hospital authorities. The investigator conducted the pre test on 1st day, by using self

administered knowledge questionnaire and observational check list to assess the knowledge and practice respectively. After the pre test, Video assisted teaching programme was given. On 7th day the investigator conducted the post test to determine the knowledge and practice with the same questionnaire.

SCORING AND INTERPRETATION PROCEDURE

PART-II

It consist of 30 items related to knowledge regarding safe handling of chemotherapeutic drugs. Each items carries "1" mark for suitable answer and "0"for wrong answer.

$$= \frac{\text{OBTAINED SCORE}}{\text{TOTAL SCORE}} \times 100$$

LEVEL OF KNOWLEDGE	SCORE	PERCENTAGE
Inadequate	0-10	0-33%
Moderately Adequate	11-20	34-67%
Adequate	21-30	68-100%

PART -III

It consist of 15 items related to practice regarding safe handling of chemotherapeutic drugs. Each carries "1" mark for correct practice score and "0" for wrong answer.

LEVEL OF PRACTICE	SCORE	PERCENTAGE
Inadequate	0-5	0-33%
Moderately Adequate	6-10	34-67%
Adequate	11-15	68-100%

PLAN FOR DATA ANALYSIS

Collected data were tabulated and analyzed using descriptive statistical methods.

S. NO	DATA ANALYSIS	METHODS	REMARKS
1.	Descriptive statistics	Mean, Frequency and Standard deviation	To describe the demographic variable to assess the knowledge and practice values of pre test and post test.
2.	Inferential statistics	'T' Test, Paired 't' test Correlation co-efficient. Chi-square test	Analyzing the significant difference between the effectiveness of video assisted teaching programme and improvement of knowledge and practice regarding safe handling of chemo drugs. Analyzing the correlation between pre and post test knowledge and practice about safe handling of chemotherapeutic drugs. Analyzing the association between demographic variables and knowledge and practice about safe

			handling of chemotherapeutic drugs.

PROTECTION OF HUMAN SUBJECTS

Formal permission was obtained from the hospital authorities. Research proposal was approved by the dissertation committee of Our Lady of Health College of Nursing, prior to the pilot study. After the clear explanation about the study, oral consent was obtained from each participant of the study before started the data collection.

Assurance was provided to the subjects that the anonymity, confidentiality and subject privacy will be guarded.

CHAPTER-VI

SUMMARY AND CONCLUSION

A pre- experimental study was conducted to assess the knowledge and practice regarding safe handling of chemotherapeutic drugs among 50 Staff nurses from Thanjavur Cancer Centre and Rohini hospitals .The sample was selected based on the criteria by using purposive sampling technique. The instruments used in this study was demographic variables, Semi structured knowledge questionnaire and observational check- list for practice. For analysis of data , descriptive and inferential statistics were used. The major findings are summarized as follows.

From the frequency and distribution table, it was implied that among 50 staff nurses , most of them aged between 20-31 years, among them 27(54%) were between the age of 20-25 yrs, 19(38%) were between 26-31 yrs and 4(8%) of them were above 31 yrs. All 50(100 %) of them were females. Among them, the Hindu's are 41(82%) ,the Christians are 9(18 %) and none of them are Muslims. In education, 28(56%) of them studied ANM , 17(34%) of them studied Diploma in Nursing and 5(10%) of them studied Degree in Nursing (B.Sc Nursing). Regarding the experience in oncology ward, 17(34%) had less than 1 year,23(46%) had 1-5 yrs and 10(20%) had more than 5 yrs. Based on the total years of experience in nursing,24(48%) of them had less than 3 yrs, 19(38%) of them had 4-6 yrs of experience and 7(14%) of them had more than 6 yrs of experience.

In pre test ,out of 50 samples, 26(52%) had inadequate knowledge, 24 [48%] had moderately adequate knowledge and no one had adequate knowledge. In post test, none of them had inadequate knowledge, 38[76 %] had moderately adequate knowledge and 12[24 %] had adequate knowledge.

Likewise in pretest, 9(18%)had inadequate practice,41[82%]had moderately adequate practice and none of them had adequate practice. In

post test 16[32 %] had moderately adequate practice ,34[68%] had adequate practice and none of them had inadequate practice. The comparison of pre test scores as well as the post test scores of the staff nurses had some improvements. So the results concluded that video assisted teaching programme about knowledge and practice was very effective for the staff nurses.

Regarding the mean and SD of pre and post test survey , the table shown that, in pre test the mean score of knowledge was 10.84 with SD 2.5 and in post test, the mean score of knowledge was 17.04 with SD of 4.4. The 't' value of CV = 14.18 ,TV=1.65(CV>TV), which is statistically significant at 0.05 level. Regarding practice, the pre test mean score was 7.1 with SD of 1.6 and in post test, the mean score of practice was 12.08 with SD of 2.2. The 't' value of CV=18.53,TV=1.65 (CV>TV) , which is statistically significant at 0.05 level. The above results revealed that, there was a significant difference between the knowledge and practice score of the staff nurses regarding safe handling of chemotherapeutic drugs.

Regarding the correlation between the post test scores of knowledge and practice ,the table shown that the correlation value of post test knowledge and practice score was 0.77 ; this revealed that there was a positive and significant correlation. So, the results indicates that there was a positive and significant correlation between the post test scores of knowledge and practice regarding safe handling of chemotherapeutic drugs among the staff nurses.

Regarding the demographic variables, the analysis stated that there was no significant association between the knowledge and their selected demographic variables like Age , Gender, Religion, Education, Experience in oncology ward and Total years of experience in nursing**.** In practice ,there was no significant association between the practice and their selected demographic variables like Age , Gender, Religion, Education and Total years

of experience in Nursing. So H0 is accepted. There is a significant association in pre test level of practice between the experience in oncology ward where the H0 is rejected. The significant association between the knowledge and practice was tested at 0.05 level. Hence, there was a significant association in pre test level of practice in the selected demographic variable of experience in oncology ward. So the third hypotheses H3 was accepted.

CONCLUSION

The objective of the study was to determine the effectiveness of Video assisted teaching programme on knowledge and practice among staff nurses regarding safe handling of chemotherapeutic drugs. The results shown that there was a significant difference between pre and post test knowledge and practice scores (paired 't' test value 1.65). In relation to the effectiveness of Video assisted teaching programme, there had been markedly increased knowledge and practice after the administration of Video assisted teaching programme. So, the given Video assisted teaching programme was effective for the staff nurses.

NURSING IMPLICATIONS

The findings of the present study have certain improvement implications for the Nursing services, Nursing education, Nursing administration and Nursing research.

NURSING SERVICE:

Nurse as a leader, health organizer, educator, motivator, supervisor and team member in various situation of work education may be given to care givers or health care workers regarding safe handling of chemotherapeutic drugs.

The findings of the study will help to create awareness among the nurses regarding safe handling of chemotherapeutic drugs.

NURSING EDUCATION:

The results of the study will help the nurse educator to import the knowledge and practice regarding safe handling of chemotherapeutic drugs to the staff nurses.

The study emphasize the need of educating the nursing personnel through In-Service or Continuing Education programme to update their knowledge and practice skills in educating the staff nurses regarding safe handling of chemotherapeutic drugs.

NURSING ADMINISTRATION:

The findings of the present study will help the nurses to organize and plan for educational programme by using various teaching methods and demonstration.

NURSING RESEARCH:

- This study can be a baseline for further studies to build upon.
- This study can be conducted in various aspect to the staff nurses.

RECOMMENDATION

Based on the research findings of the study, it is recommended that

- Comparative study can be done to find out the effectiveness of various methods of teaching on safe handling of chemotherapeutic drugs.
- An exploratory survey can be done to find out the limitations faced by the nurses in following safe handling of chemotherapeutic drug practices.
- A similar study can be done in all the hospitals.

CHAPTER-V

DISCUSSION

This chapter represents the discussion of the study based on the objectives.

The study was a pre-experimental design to evaluate the effectiveness of video assisted teaching programme on knowledge and practice regarding safe handling of chemotherapeutic drugs among the staff nurses at selected hospitals, Thanjavur.

An interview was conducted to assess the knowledge and observed the practice skills by self administered knowledge questionnaire and observational check list among the staff nurses who were handling chemotherapeutic drugs in Thanjavur cancer centre and Rohini Hospital at Thanjavur. After pre test the Video assisted teaching programme was given by the investigator. After 7 days from the pre test, post test was conducted by using the same questionnaire. The data was grouped and analyzed using descriptive statistics and inferential statistics.

The first objective of this study was to assess the knowledge and practice regarding safe handling of chemotherapeutic drugs among the staff nurses before administration of video assisted teaching programme.

The data analysis reveals that the level of knowledge in pre test 26(52%) possessed Inadequate knowledge,24(48%) had moderately adequate knowledge and none of them had adequate knowledge. The results shown that there was a lack of knowledge among the staff nurses regarding safe handling of chemotherapeutic drugs. In pretest, the level of practice were 9(18%) had inadequate practice, 41(82%) had moderately adequate practice and no one had adequate practice.

The second objective of this study was to develop video assisted teaching programme

From the pre test value of knowledge and practice, it shown that the staff nurses had inadequate and moderately adequate of knowledge and

practice, no one had adequate knowledge and practice. So, the Video assisted teaching programme was prepared for the staff nurses to gain adequate knowledge and practice.

The third objective of this study was to evaluate the effectiveness of video assisted teaching programme regarding safe handling of chemotherapeutic drugs among the staff nurses.

In pre test, the overall mean score for knowledge was 10.84 with SD of 2.5 and in post test the mean score for knowledge was17.04 with SD of 4.4.Here, the calculated 't' value of CV =14.18,TV=1.65 (CV>TV) at 0.05 level. For practice the pretest mean score was 7.1 with SD of 1.6 and in post test, the mean score was 12.08 with SD of 2.2. Here the calculated 't' value of CV =18.53,TV=1.65 (CV>TV) at 0.05 level. Hence, both the value of knowledge and practice were CV > TV , which is statistically significant at 0.05 level. So, the research hypotheses H1 was accepted. Finally ,there was a significant difference between the knowledge and practice scores of the staff nurses regarding safe handling of chemotherapeutic drugs.

The fourth objective of this study was to correlate the knowledge and practice regarding safe handling of chemotherapeutic drugs among the staff nurses.

The table showed that the correlation value of post test knowledge and practice score was 0.77 ; this indicates that there was a positive and significant improvement in their knowledge and practice regarding safe.

The fifth objective of this study was to determine the association between the pre test level of knowledge and practice regarding safe handling of chemotherapeutic drugs among the staff nurses and their selected demographic variables such as Age , Gender, Religion, Education, Experience in oncology ward and Total years of experience in nursing.

Regarding the demographic variables, the analysis reveals that there was no significant association between the knowledge and their selected demographic variables like Age , Gender, Religion, Education, Experience in

oncology ward and Total years of experience in nursing**.** In practice ,there was no significant association between the practice and their selected demographic variables like Age , Gender, Religion, Education and Total years of experience in Nursing. So there was a significant association in pre test level of practice between the experience in oncology ward. So the H0 is rejected.

The significant association was tested at 0.05 level. Hence there is a significant association in pre test level of practice in the selected demographic variable of experience in oncology ward ,the third hypotheses H3 was accepted.

CHAPTER-VI

SUMMARY AND CONCLUSION

A pre- experimental study was conducted to assess the knowledge and practice regarding safe handling of chemotherapeutic drugs among 50 Staff nurses from Thanjavur Cancer Centre and Rohini hospitals .The sample was selected based on the criteria by using purposive sampling technique. The instruments used in this study was demographic variables, Semi structured knowledge questionnaire and observational check- list for practice. For analysis of data , descriptive and inferential statistics were used. The major findings are summarized as follows.

From the frequency and distribution table, it was implied that among 50 staff nurses , most of them aged between 20-31 years, among them 27(54%) were between the age of 20-25 yrs, 19(38%) were between 26-31 yrs and 4(8%) of them were above 31 yrs. All 50(100 %) of them were females. Among them, the Hindu's are 41(82%) ,the Christians are 9(18 %) and none of them are Muslims. In education, 28(56%) of them studied ANM , 17(34%) of them studied Diploma in Nursing and 5(10%) of them studied Degree in Nursing (B.Sc Nursing). Regarding the experience in oncology ward, 17(34%) had less than 1 year,23(46%) had 1-5 yrs and 10(20%) had more than 5 yrs. Based on the total years of experience in nursing,24(48%) of them had less than 3 yrs, 19(38%) of them had 4-6 yrs of experience and 7(14%) of them had more than 6 yrs of experience.

In pre test ,out of 50 samples, 26(52%) had inadequate knowledge, 24 [48%] had moderately adequate knowledge and no one had adequate knowledge. In post test, none of them had inadequate knowledge, 38[76 %] had moderately adequate knowledge and 12[24 %] had adequate knowledge.

Likewise in pretest, 9(18%)had inadequate practice,41[82%]had moderately adequate practice and none of them had adequate practice. In

post test 16[32 %] had moderately adequate practice ,34[68%] had adequate practice and none of them had inadequate practice. The comparison of pre test scores as well as the post test scores of the staff nurses had some improvements. So the results concluded that video assisted teaching programme about knowledge and practice was very effective for the staff nurses.

Regarding the mean and SD of pre and post test survey , the table shown that, in pre test the mean score of knowledge was 10.84 with SD 2.5 and in post test, the mean score of knowledge was 17.04 with SD of 4.4. The 't' value of CV = 14.18 ,TV=1.65(CV>TV), which is statistically significant at 0.05 level. Regarding practice, the pre test mean score was 7.1 with SD of 1.6 and in post test, the mean score of practice was 12.08 with SD of 2.2. The 't' value of CV=18.53,TV=1.65 (CV>TV) , which is statistically significant at 0.05 level. The above results revealed that, there was a significant difference between the knowledge and practice score of the staff nurses regarding safe handling of chemotherapeutic drugs.

Regarding the correlation between the post test scores of knowledge and practice ,the table shown that the correlation value of post test knowledge and practice score was 0.77 ; this revealed that there was a positive and significant correlation. So, the results indicates that there was a positive and significant correlation between the post test scores of knowledge and practice regarding safe handling of chemotherapeutic drugs among the staff nurses.

Regarding the demographic variables, the analysis stated that there was no significant association between the knowledge and their selected demographic variables like Age , Gender, Religion, Education, Experience in oncology ward and Total years of experience in nursing**.** In practice ,there was no significant association between the practice and their selected demographic variables like Age , Gender, Religion, Education and Total years

of experience in Nursing. So H0 is accepted. There is a significant association in pre test level of practice between the experience in oncology ward where the H0 is rejected. The significant association between the knowledge and practice was tested at 0.05 level. Hence, there was a significant association in pre test level of practice in the selected demographic variable of experience in oncology ward. So the third hypotheses H3 was accepted.

CONCLUSION

The objective of the study was to determine the effectiveness of Video assisted teaching programme on knowledge and practice among staff nurses regarding safe handling of chemotherapeutic drugs. The results shown that there was a significant difference between pre and post test knowledge and practice scores (paired 't' test value 1.65). In relation to the effectiveness of Video assisted teaching programme, there had been markedly increased knowledge and practice after the administration of Video assisted teaching programme. So, the given Video assisted teaching programme was effective for the staff nurses.

NURSING IMPLICATIONS

The findings of the present study have certain improvement implications for the Nursing services, Nursing education, Nursing administration and Nursing research.

NURSING SERVICE:

Nurse as a leader, health organizer, educator, motivator, supervisor and team member in various situation of work education may be given to care givers or health care workers regarding safe handling of chemotherapeutic drugs.

The findings of the study will help to create awareness among the nurses regarding safe handling of chemotherapeutic drugs.

NURSING EDUCATION:

The results of the study will help the nurse educator to import the knowledge and practice regarding safe handling of chemotherapeutic drugs to the staff nurses.

The study emphasize the need of educating the nursing personnel through In-Service or Continuing Education programme to update their knowledge and practice skills in educating the staff nurses regarding safe handling of chemotherapeutic drugs.

NURSING ADMINISTRATION:

The findings of the present study will help the nurses to organize and plan for educational programme by using various teaching methods and demonstration.

NURSING RESEARCH:

- This study can be a baseline for further studies to build upon.
- This study can be conducted in various aspect to the staff nurses.

RECOMMENDATION

Based on the research findings of the study, it is recommended that

- Comparative study can be done to find out the effectiveness of various methods of teaching on safe handling of chemotherapeutic drugs.
- An exploratory survey can be done to find out the limitations faced by the nurses in following safe handling of chemotherapeutic drug practices.
- A similar study can be done in all the hospitals.

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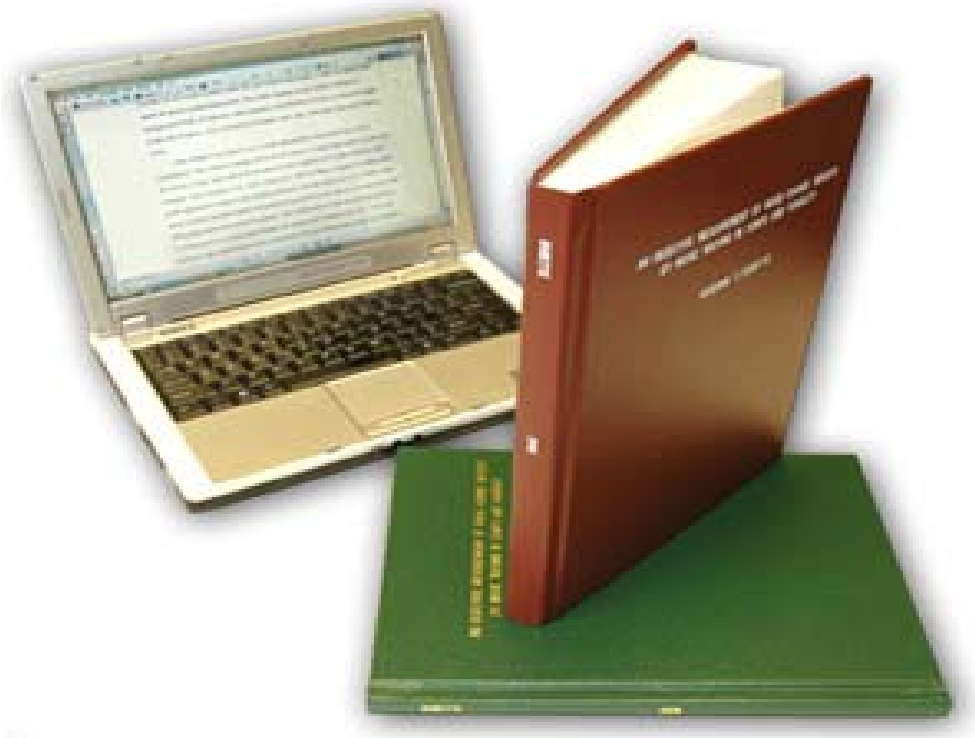

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SNAP SHOTS

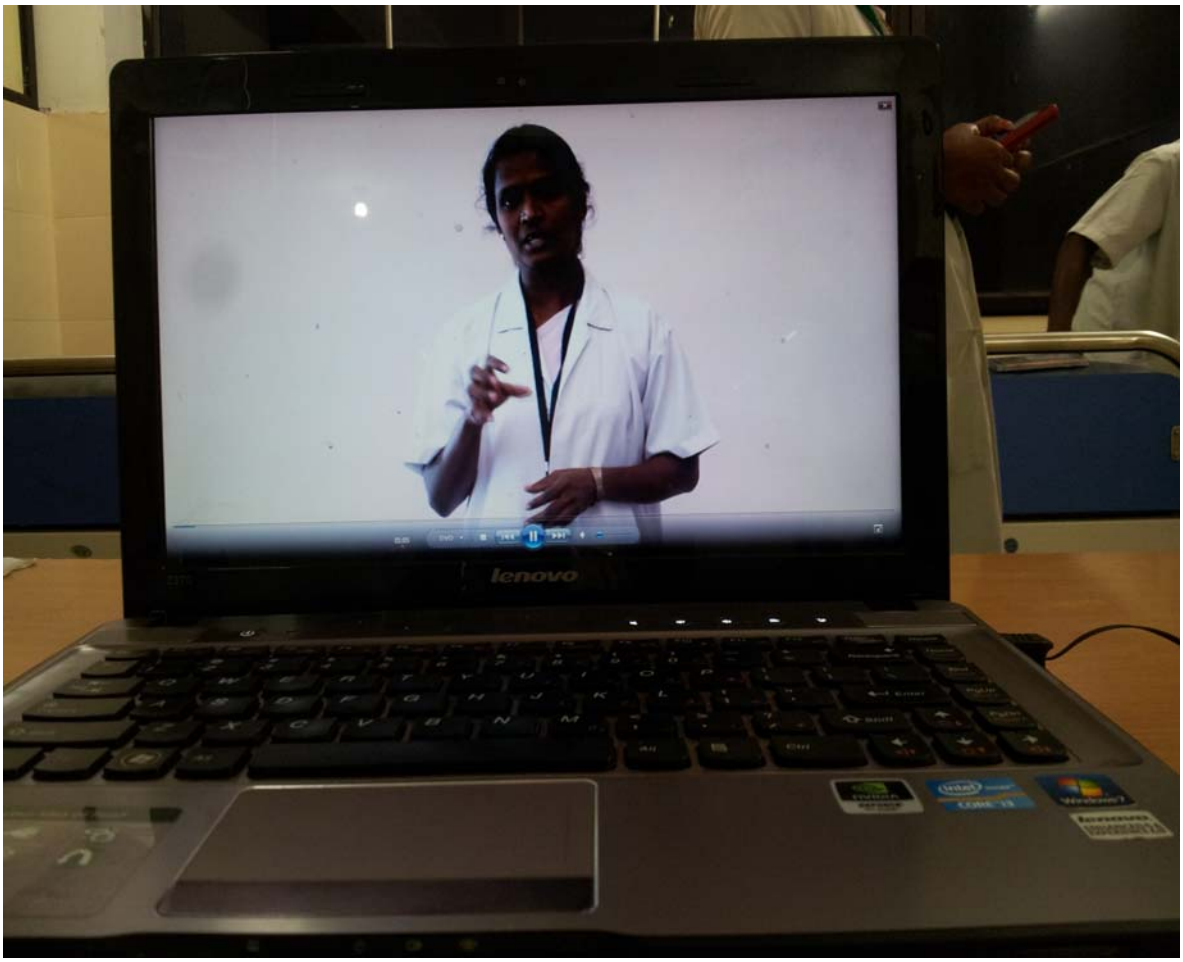
Welcome

To

Video Assisted teaching programme

On

Safe Handling Of Chemotherapeutic drugs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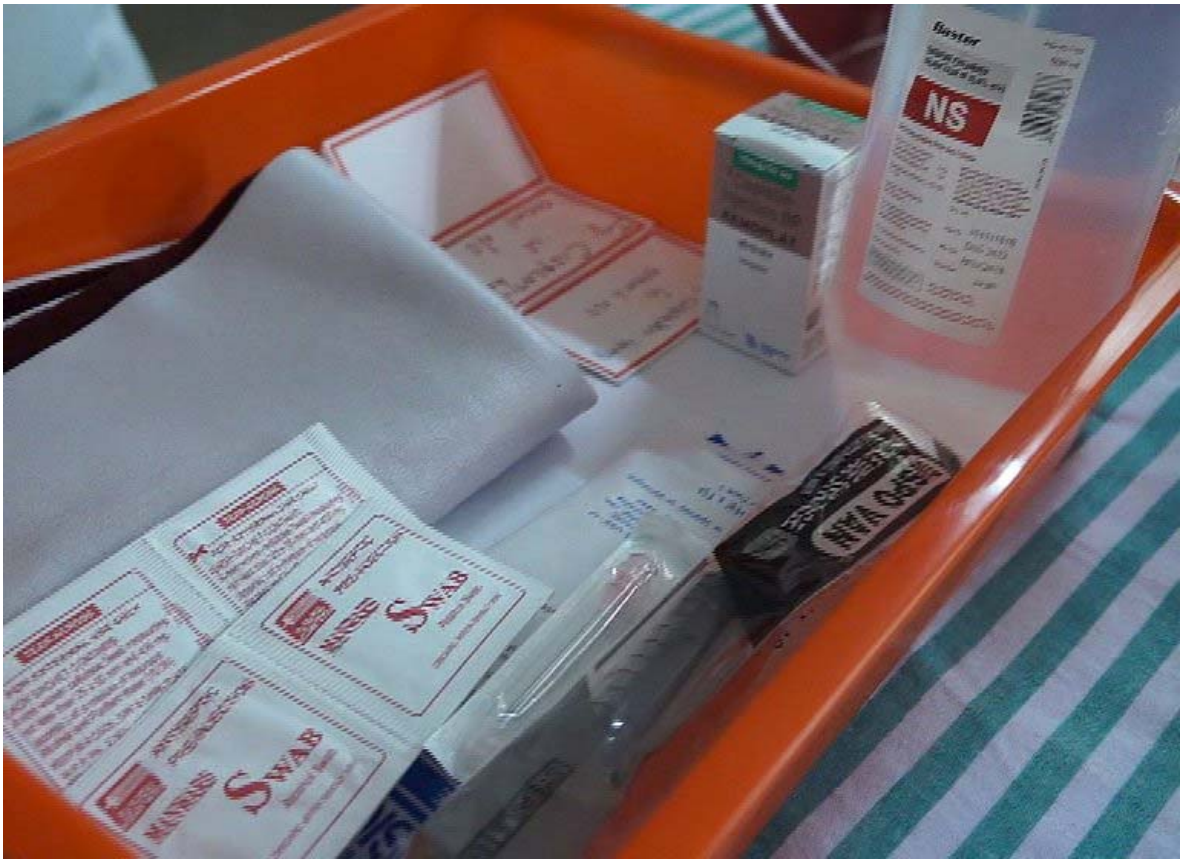
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ANNEXURES

RESEARH TOOL

TOOI - I - DEMOGRAPHIC PROFILE

SAMPLE NUMBER :

NAME OF THE HOSPITAL:

Samples are requested to tick (√)in correct options

S.NO	DEMOGRAPHIC DATA
1.	Age in years a. 20-25 years b. 26-31 years c. above 31 years
2.	Gender a. Male b. Female
3.	Religion a. Hindu b. Christian c. Muslim
4.	Education a. A.N.M b. Diploma in Nursing c. Degree in Nursing

5.	Experience in oncology ward a. below 1 year b. 1- 5 years c. Above 5 years
6.	Total years of experience in Nursing a. 0-3year b.4-6 years c. Above 6 years

TOOL-II : SEMI STRUCTURED KNOWLEDGE QUESTIONNAIRE

Samples are requested to tick (√)in correct options

S.NO	KNOWLEDGE QUESTIONNAIRE
1.	Chemotherapy is most effective to treat a) Small tumour with slowly proliferating cells. b) Larger tumour with rapidly proliferating cells c) Small tumour with rapidly proliferating cells.
2.	Fluorouracil is commonly known as a) 5 FU b) Cytoxan c) Doxil
3.	Ondansetron is a) A chemotherapy drug b) A steroid c) Antiemetic
4.	The type of glove material should be used for effective in reducing nurse's risk of exposure to hazardous drug is a) Ordinary gloves b) Polyurethane gloves c) Nitrile gloves
6.	Spillage of chemotherapy drugs should be cleaned with a)Cotton pad b)Spill kit c)Gauze

7.	The level of drugs should be loaded in 10 ml syringe is a) 10ml b) 5 ml c) 7.5 ml
8.	The distance between the health care personnel and biological safety cabinet Is a) 4 inches b) 3inches c) 6 inches
9.	Safety cabinet work area should be covered with a) Plastic-backed absorption pad b) Gamgee pad c) Tissue paper
10.	Biological safety cabinet used to protect from a) Cytotoxic drugs b) Inatropic drugs c) Beta-blockers
11.	The best decontaminant to clean chemotherapy agents a) Lysol 20% b) 70% Isopropyl alcohol c) Betadine

12.	Preparation of drugs in parenteral fluids should be done in a) Outside the safety cabinet b) Inside the safety cabinet c) Patient's bed side
13.	The duration of changing gloves after the procedure is a) 15 minutes b) 20 minutes c) 30 minutes
14.	. Excessive chemotherapy drugs must be a) Stored in refrigerator b) Disposed in chemotherapy container c) Stored in room temperature
15.	Preparation and administration of hazardous drugs to be done by a) All nurses b) Adequately trained nurses c) Physicians Only
16.	Flush with the following solution after administration of vesicants drug a) Normal saline b) Heparin

	c) Inj. Dexamethazone
17.	The phaseal system has the following components a) 5 b) 4 c) 3
18.	Loaded syringes(chemo drugs) should be transported through a) Paper bags b) Zip-lock bags c) Injection tray
19.	The cabinet with the blower should be turned on position for a) 10 hours b) 24 hours c) 20hours
20.	The drug which cause irritant effect is a) Vinblastine b) Cisplatin c) Mitomycin
21.	Symptoms of vesicants reaction takes place after a) 10-15 hours of chemotherapy b) 6-12 hours of chemotherapy

	c) 1-2 hours of chemotherapy
22.	If extravasation occurs due to Vinca alkaloid medication, can apply a) Ice b) Warm compress c) Ointment
23.	. Vesicant is a medication cause a) Severe blood vessels damage b) Severe tissue injury. c) Arterial damage
24.	Immediate treatment after skin contact to chemotherapy drug is a) Wash with dettol b) Wash with soap and water c) Wash with sterilium lotion
25	Hypersensitivity "flare reaction" at injection site caused by a) Vesicant drugs b) Irritant drugs c) Irritant and Vesicant drugs
26.	Chemotherapy drug may cause anyone of the following dysfunction a) Cardiac dysfunction b) Carcinogenesis c) Respiratory dysfunction
27.	The adverse effect takes place in reproductive system is a) Menstrual dysfunction b) Fibroid uterus

	c) Unusual bleeding
28.	Acute exposure to chemotherapeutic drug can cause a) Headache b) Bleeding from any sites c) Cardiac problem
29.	BSC stands for a) Bachelor of Science. b) Biological safety cabinet c) Biomedical safety container
30.	Alopecia means a) Skin damage b) Vision loss c) Hair loss

TOOL -III : OBSERVATIONAL CHECK - LIST

SAMPLE NUMBER : DATE OF OBSERVATION :

S.NO	COMPETENCIES	YES	NO
1.	Explaining the patient about routes of exposure to cytotoxic agents.		
2.	Arranged all equipments and drugs needed.		
3.	Chemotherapeutic agents are transported with ZIP-LOCK BAGS with chemotherapy labels.		
4.	Prepare the drugs in Bio-safety cabinet.		
5.	Personnel Protective Equipments(PPE) are used.		
6.	Preparation performed over a plastic backed absorbent pads.		
7.	Use positive/negative pressure technique to withdraw cytotoxic drugs.		
8.	External surface of syringe are wiped with alcohol swab after withdrawal of cytotoxic drugs.		
9.	Administering of cytotoxic drug with proper technique.		
10.	Disposal of cytotoxic waste material in yellow bag.		
11.	Spill- kit is available while preparing and administering medications.		
12.	Broken glass fragments/vials are disposed into appropriate chemo waste container.		
13.	Wash the hands after procedure.		
14.	Documented the spillage check list.		
15.	Assesses for hypersensitivity reactions to patient.		

TOTAL SCORE :

TEACHING TIME SCHEDULE

S.NO	NO.OF SAMPLES	PRE TEST	TEACHING	POST TEST
1.	5	24-03-2014	24-03-2014	31-03-2014
2.	5	26-03-2014	26-03-2014	02-04-2014
3.	4	27-03-2014	27-03-2014	03-04-2014
4.	5	28-03-2014	28-03-2014	04-04-2014
5.	5	29-03-2014	29-03-2014	05-04-2014
6.	4	30-03-2014	30-03-2014	06-04-2014
7.	5	31-03-2014	31-03-2014	07-04-2014
8.	5	01-04-2014	01-04-2014	08-04-2014
9.	4	02-04-2014	02-04-2014	09-04-2014
10.	4	03-04-2014	03-04-2014	10-04-2014
11.	4	04-04-2014	04-04-2014	11-04-2014

A Video assisted teaching programme was conducted for 35 minutes and 10 minutes were allotted for discussion. After 7 days of Video assisted teaching programme, the post test was conducted with the same questionnaire for the same group of staff nurses.

ANSWER KEY FOR KNOWLEDGE QUESTIONNAIRE

Q.NO	ANSWERS	Q.NO	ANSWERS
1.	C	16.	A
2.	A	17.	C
3.	C	18.	B
4.	C	19.	B
5.	A	20.	B
6.	B	21.	B
7.	C	22.	B

8.	C	23.	B
9.	A	24.	B
10.	A	25.	B
11.	B	26.	B
12.	B	27.	A
13.	C	28.	A
14.	A	29.	B
15.	B	30.	C

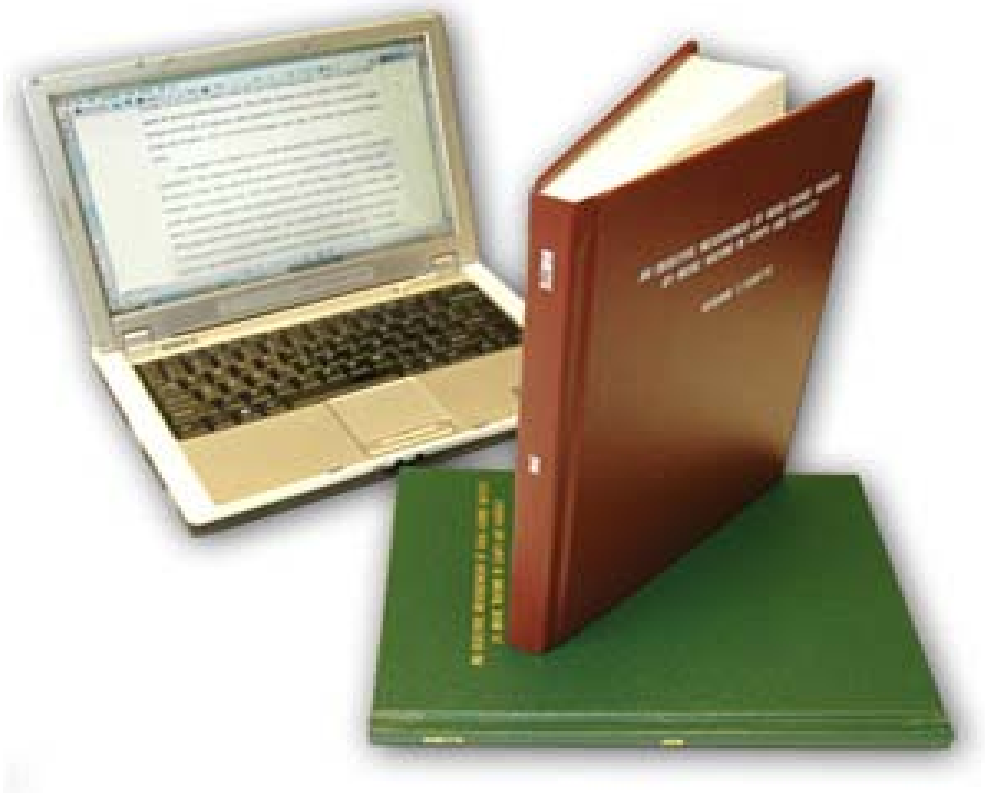
SCORING KEY FOR PRACTICE

RESPONSE	**SCORE**
YES	1
NO	0

CHAPTER -I

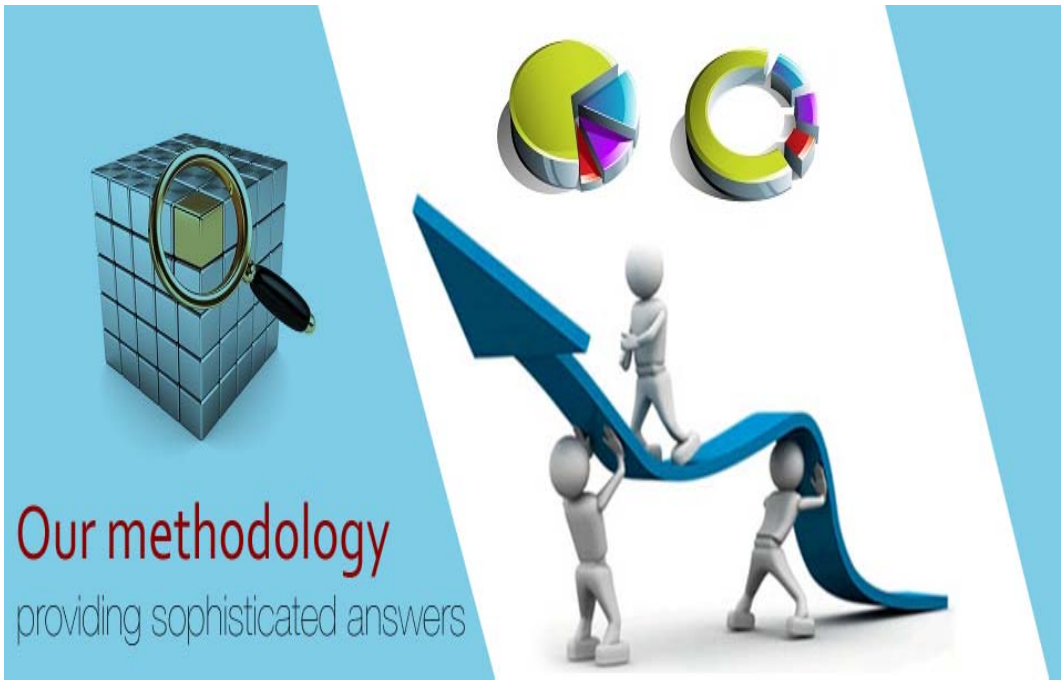
INTRODUCTION

CHAPTER-II



REVIEW OF LITERATURE

CHAPTER-III



RESEARCH METHODOLOGY

CHAPTER - IV

DATA ANALYSIS

CHAPTER -V

DISCUSSION

CHAPTER -VI

SUMMARY AND CONCLUSION

LETTER SEEKING PERMISSION TO CONDUCT RESEARCH STUDY

FROM

Mrs.Thamizharasi.T,

II Year M.Sc Nursing,

Our lady of health college of nursing,

Thanjavur.

(Through principal)

TO

The Administrator,

Thanjavur Cancer Centre,

Thanjavur.

RESPECTED SIR,

SUB: Requesting permission to conduct the research project in your esteemed hospital-reg.

As a part of my curriculum requirement under THE TAMILNADU DR.M.G.R.MEDICAL UNIVERSITY ,I the M.Sc (N) student need to conduct a research study in the following statement,

"A study to assess the effectiveness of video assisted teaching programme on knowledge and practice regarding safe handling of chemotherapeutic drugs among the staff nurses at selected hospitals,Thanjavur."

Hence I request you to kindly grant me permission to conduct my research project in your esteemed hospital.

Kindly do the needful and oblige.

Thanking you,

Place : Thanjavur
Date : 03/03/2014

Yours faithfully,

T.Thami

(T.THAMIZHARASI)

Signature of the principal

PRINCIPAL,
Our Lady of Health College of Nursing,
V.O.C. Nagar,
THANJAVUR-613 007.

For THANJAVUR CANCER CENTRE

Administrative Officer

LETTER SEEKING PERMISSION TO CONDUCT RESEARCH STUDY

FROM

Mrs.Thamizharasi.T,

II Year M.Sc Nursing,

Our lady of health college of nursing,

Thanjavur.

(Through principal)

TO

The Administrator,

Rohini Hospital,

Thanjavur.

RESPECTED SIR,

SUB: Requesting permission to conduct the research project in your esteemed hospital-reg.

As a part of my curriculum requirement under THE TAMILNADU DR.M.G.R.MEDICAL UNIVERSITY ,I the M.Sc (N) student need to conduct a research study in the following statement,

"A study to assess the effectiveness of video assisted teaching programme on knowledge and practice regarding safe handling of chemotherapeutic drugs among the staff nurses at selected hospitals, Thanjavur."

Hence I request you to kindly grant me permission to conduct my research project in your esteemed hospital.

Kindly do the needful and oblige.

Thanking you,

Place : Thanjavur
Date :19-03-14

Yours faithfully,

T. Thamizh

(T.THAMIZHARASI)

Signature of the principal

PRINCIPAL,
Our Lady of Health College of Nursing,
V.O.C. Nagar,
THANJAVUR-613 007.

DR. M.A. RAZACK JOHN, MD.,C.Diab.,C.Dip.Diab.,
Consultant Diabetologist & Gen. Physician
Reg. No. 42053
ROHINI HOSPITALS
Thanjavur - 613007
Ph : 04362-279801-06.
razackjohny@hotmail.com

19-3-14

REQUISITION FOR VALIDITY

From

Mrs.Thamizharasi.T,

II Yr M.Sc(N),

Our Lady of Health College of Nursing,

Thanjavur.

Through Principal

To

SUBJECT :

Requisition for **VALIDITY.**

Respected madam,

I Mrs.Thamizharasi.T, doing II Year M.Sc (N),Medical surgical nursing department in Our lady of health college of Nursing. I have undertaken the following study under Tamilnadu Dr.M.G.R. Medical University.

"Effectiveness of Video assisted teaching programme on knowledge and practice regarding safe handling of chemotherapeutic drugs among the staff nurses at selected hospital, Thanjavur."

I kindly request you to give your valuable commands and suggestions for the study.

ENCLOSURE:

1. TOOL I : Demographic data
2. TOOL II : Self administered questionnaire
3. TOOL III : Check list
4. CONTENT OF THE STUDY

Thank you,

Place :
Date :

yours faithfully,
T.Thamizharasi

LIST OF EXPERTS

S.NO	LIST OF EXPERTS
1. .	Dr. Marimuthu M.S.,DNB.,M.Ch, Surgical oncologist, Vishnu cancer centre &Research institute, Thanjavur.
2.	Dr. Sathish Srinivasan M.D(Radiotherapy),DNB(RT), Meenakshi hospital, Thanjavur.
3.	Prof. Dr.S.Rajeena Rani M.Sc(N), Ph.D, Prof. Medical surgical nursing & Research guide, Doctor's college of nursing, Pudukkottai.
4.	Mr.Anbarasan.C M.Sc(N), Associate professor, Karpaga vinayaga College of nursing, Pudukkottai.
5.	Mrs.Lakshmi M.Sc(N), Asst.Professor, AECS Maaruti college of nursing, Bangalore.

CERTIFICATION FOR CONTENT VALIDITY

I hereby certify that I have validated the tool of **Mrs.Thamizharasi.T,** II Year M.Sc(N) Student(Medical surgical nursing),Our lady of health college of Nursing,Thanjavur,who is undertaking the dissertation work on the following topic

"Effectiveness of Video assisted teaching programme on knowledge and practice regarding safe handling of chemotherapeutic drugs among the staff nurses at selected hospital, Thanjavur."

Place : PUDUKKOTTAI.

Date : 7.3.14

Signature of the expert

Name,Designation and address

ANBARASAN. C M.Sc (N)
ASSOCIATE PROFESSOR,
KARPAGA VINAYAGA COM,
PUDUKKOTTAI.

CERTIFICATION FOR CONTENT VALIDITY

I hereby certify that I have validated the tool of **Mrs.Thamizharasi.T,** II Year M.Sc(N) Student(Medical surgical nursing),Our lady of health college of Nursing,Thanjavur,who is undertaking the dissertation work on the following topic

"Effectiveness of Video assisted teaching programme on knowledge and practice regarding safe handling of chemotherapeutic drugs among the staff nurses at selected hospital, Thanjavur."

Place : Thanjavur

Date : 24-2-14.

Signature of the expert

Name,Designation and address

Dr. G. SATHISH SRINIVASAN
M.D(Radio Therapy),DNB(RT),
Consultant-Radiation Oncology
Reg. No. 74792
Meenakshi Hospital
Tanjore.

CERTIFICATION FOR CONTENT VALIDITY

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"Effectiveness of Video assisted teaching programme on knowledge and practice regarding safe handling of chemotherapeutic drugs among the staff nurses at selected hospitals Thanjavur."

Place : Pudukkottai

Date : 11.03.14

Signature of the expert

Prof. Dr. S. RAJINA RANI
Prof. Med. Surg. (N) & Research Guide,
Doctor's College of Nursing,
Pudukkottai - 622 203.

Name,Designation and address

CERTIFICATION FOR CONTENT VALIDITY

I hereby certify that I have validated the tool of **Mrs.Thamizharasi.T,** II Year M.Sc(N) Student(Medical surgical nursing),Our lady of health college of Nursing,Thanjavur,who is undertaking the dissertation work on the following topic

"Effectiveness of Video assisted teaching programme on knowledge and practice regarding safe handling of chemotherapeutic drugs among the staff nurses at selected hospital, Thanjavur."

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CERTIFICATE OF ENGLISH EDITING

TO WHOMSOEVER IT MAY CONCERN

This is to certify that the dissertation work "A study to assess the effectiveness of video assisted teaching programme on knowledge and practice regarding safe handling of chemotherapeutic drugs among the staff nurses at selected hospitals in Thanjavur" done by **MRS. THAMIZHARASI . T,** a student of Our Lady of Health College of Nursing, Thanjavur, has been edited by me and the use of English in this dissertation is found to be appropriate.

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